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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,905	08/04/2003	Hiroshi Kondo	00862.023174.	2885

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EXAMINER	
LAXTON, GARY L	
ART UNIT	**PAPER NUMBER**
2838	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/632,905	KONDO ET AL.	
	Examiner	Art Unit	
	Gary L. Laxton	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Levran et al (US 5,592,137).

Levran et al disclose a power source; and a power converter using a transformer, wherein the transformer comprises: a primary winding which has only two or three turns; and a secondary winding which has more turns than the primary winding to boost the output voltage from the power source by 25 to 500 times (col. 1 lines 25-45). Levran et al explain that transformers enable users to increase or decrease the voltage level by varying the ratio of the number of turns contained in the primary winding with respect to the number of turns contained in the secondary winding. For example, the use of a transformer in a television set is used to generate high voltages for the cathode ray tube. These are referred to as flyback transformers, and have a large

difference in the turns ratio of the primary and secondary coils. The primary winding contains one or two turns of a coil which pass through the coil of a secondary winding having more than 10 times as many turns. This is necessary in order to increase the voltage across the secondary of the transformer to 10,000 to 50,000 volts from an input winding which has approximately 330 volts (peak to peak) applied across it (this corresponds to 110-120 volts RMS which is typically provided in a household appliance outlet.

4. Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. 102(a) as being anticipated by Masuda et al (US 6,356,180).

Masuda et al discloses a power converter (figures 2) comprising a transformer (2) having a primary with two or three turns (see claim 1) and a secondary with a plurality of turns (col. 2 lines 58-60) for boosting the output voltage from the power source by 25 times to 500 hundred times (col. 2 lines 15-20).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-6 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda et al (US 6,356,180) in view of Fukuda (6-309047).

Claims 3, 4 and 10-12; Masuda et al discloses the claimed subject matter in regards to claims 1 and 7 supra, except for wherein the source is a solar cell or commercial power system.

It has been held that a recitation wit respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 1647 (1987).

For instance, Fukuda teaches that it is already known in the art to use boost converter circuits to convert and regulate power from sources such as solar cells and commercial power systems for the obvious reasons of converting or regulating the voltage from the source to a useful voltage required by different load circuits.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the power converter of Masuda et al in combination with a solar cell power source or a commercial power supply system in order to convert or regulate the voltage from the source to a useful voltage use by various loads.

Claim 5; Masuda et al discloses the claimed subject matter in regards to claim 1 supra, except for wherein the frequency and duty cycle are fixed.

Fukuda teaches that it is already known in the art to use a boost converter where the frequency and duty cycle are fixed in order to provide a circuit with a simple control circuit in order to keep manufacturing cost to a minimum.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the converter of Masuda et al to include a fixed frequency and fixed duty cycle control scheme as taught by Fukuda in order to provide a circuit with a simple control circuit in order to keep manufacturing cost to a minimum.

Claims 6 and 9; Masuda et al discloses the claimed subject matter in regards to claim 1 supra, except for an inverter at the output to produce a constant AC output from the secondary voltage.

Fukuda teaches that it is already known in the art to use a power converter that further comprises an inverter at the output to hold the voltage from the secondary substantially constant in order to produce an AC voltage.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the converter of Masuda et al to include an inverter at the output to convert the secondary voltage to AC and to keep the output substantially constant in order to power an AC load as taught by Fukuda.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (571) 272-2079. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gary L. Laxton
Primary Examiner
Art Unit 2838

5/15/2006